



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/669,969

09/23/2003

Iosif R. Korsunsky

4887

25859

7590

12/30/2004

WEI TE CHUNG
FOXCONN INTERNATIONAL, INC.
1650 MEMOREX DRIVE
SANTA CLARA, CA 95050

EXAMINER

TSUKERMAN, LARISA Z

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,969

Applicant(s)

KORSUNSKY ET AL.

Examiner

Larisa Z Tsukerman

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 14-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 10, 13, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 6, 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 10 is objected to because of the following informalities: in line 2 change "an" to – the --. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 7, 10, 13 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Cosmo (4477133)

In regard to claim 1, Cosmo discloses an electrical connector 10 for interconnecting two printed circuit boards 50 and 52, comprising:

a dielectric housing 12 defining a passageway 24 or 20 extending from a first face (not marked) to a second face (not marked), which is **adjacent** to the first face;

an electrical contact 26 received in the passageway 24 or 20 and being moveable with respect to the housing 12 (pivot point 29); and

a biasing spring 36 arranged in the housing 12 and applying a driving force to the contact 26 (see Col. 3, lines 10 and 25-32); and

an actuator 42 coupled with the contact 26 (through spring 36) so as to move the contact within the passageway 24 or 20 (see Col. 3, lines 10 and 25-32).

In regard to claim 2, Cosmo discloses the biasing spring 36 comprises an insulator body abutting against the contact 26 (see Fig.2 and 3).

In regard to claim 3, Cosmo discloses the passageway 24 defines a first opening in the first face (not marked) adapted for facing a first printed circuit board 50 and a second opening in the second face (not marked) adapted for facing a second printed circuit board 52 which is perpendicular to the first printed circuit board 50 (see Fig. 2).

In regard to claim 4, Cosmo discloses the first and the second openings of the passageway are so dimensioned that a first and a second ends (not marked) of the contact 26 are free to move (see Col. 3, lines 10 and 25-32), the first and the second ends of the contact 26 being adapted to move along the first 50 and the second 52 printed circuit boards, respectively (see Col. 3, lines 42-44).

In regard to claim 5, Cosmo discloses the biasing spring 36 **applies a driving force to the first end** (near point 29) of the contact 26 (see Col. 3, lines 10 and 25-32).

In regard to claim 7, Cosmo discloses the first and the second faces are perpendicular to each other (see Attachment 3).

In regard to claim 10 Cosmo discloses the actuator 42 applying a force to the contact 26 (through the spring 36) so as to moveably actuate the contact 26 (see Col. 3, lines 10 and 25-32).

In regard to claim 13, Cosmo discloses the first and the second faces are perpendicular to each other (see attachment 3).

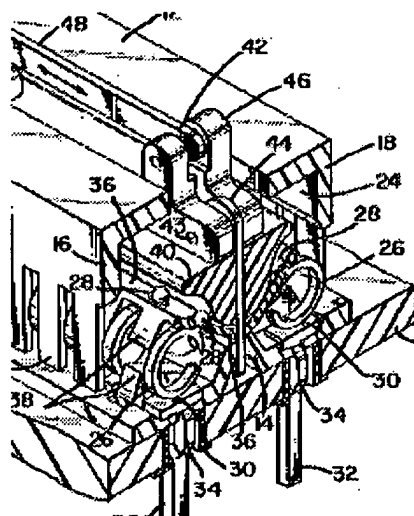
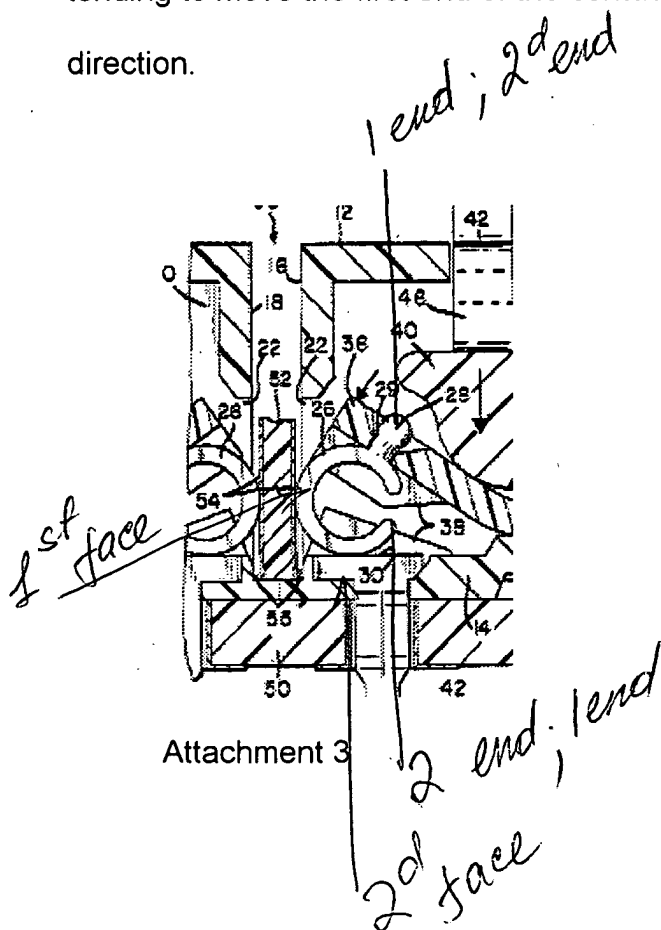
Art Unit: 2833

In regard to claim 26, Cosmo discloses an electrical connector 10 for interconnecting two printed circuit boards 50 and 52, comprising:

a dielectric housing 12 defining a passageway 20 or 24 extending from a first face to a second face, which is adjacent to the first face;

an electrical contact 26 received in the passageway 20, 24 and being moveable with respect to the housing, the contact 26 defining first and second ends;

a biasing spring 36 arranged in the housing 12 and applying a driving force to the contact 26, further comprising an actuator 42 coupled with the second end (near point 29) of the contact so as to move the first end (end opposite to 29) of the contact along a first direction, and wherein the biasing spring 36 applies a force to the contact tending to move the first end of the contact along a second direction opposite to the first direction.



Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Buck et al. (5069627).

In regard to claim 1, Buck et al. disclose an electrical connector 20 for interconnecting two printed circuit boards 30 and 32, comprising:

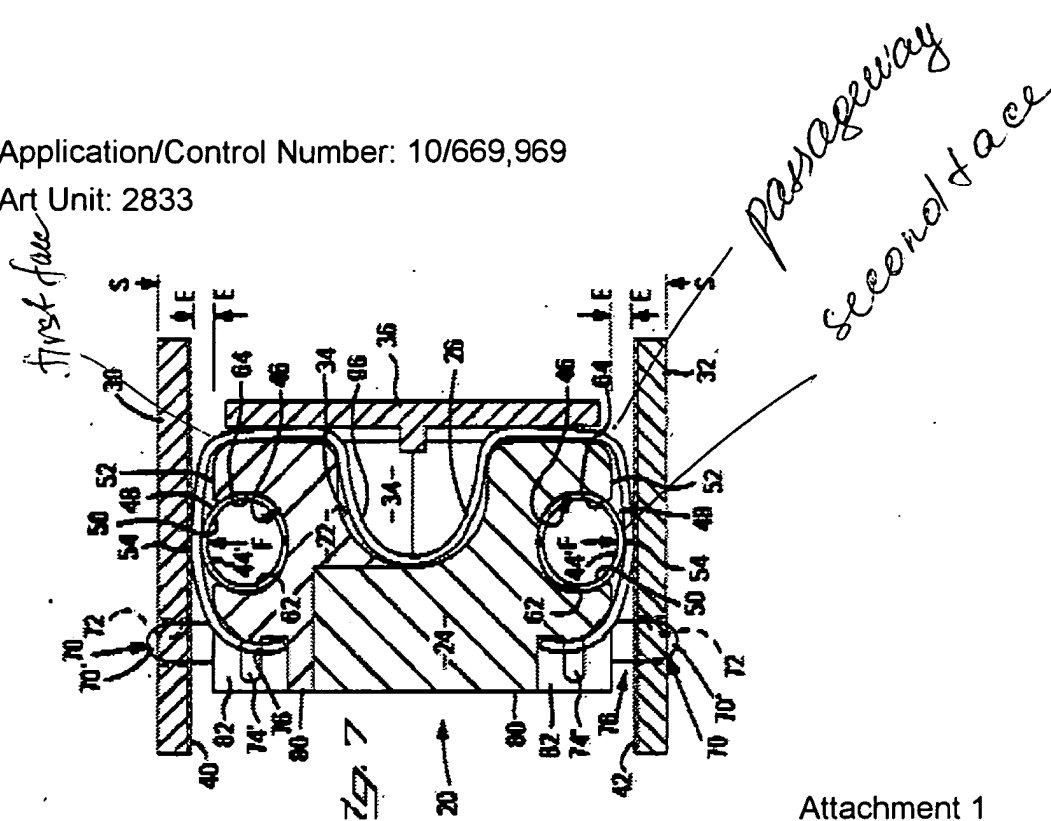
a dielectric housing 24 defining a passageway (not marked) extending from a first face (not marked) to a second face (not marked), which is adjacent to the first face;

an electrical contact 26 received in the passageway and being moveable with respect to the housing 24 (see Abstract, lines 17-20); and

a biasing spring 44 arranged in the housing 24 and applying a driving force to the contact 26 (see Abstract, lines 17-20); and

an actuator 74 coupled with the contact 26 so as to move the contact within the passageway (see Abstract).

In regard to claim 13, Buck et al. disclose the first and the second faces are perpendicular to each other.



Attachment 1

Claims 1, 10 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hikami et al. (4846729).

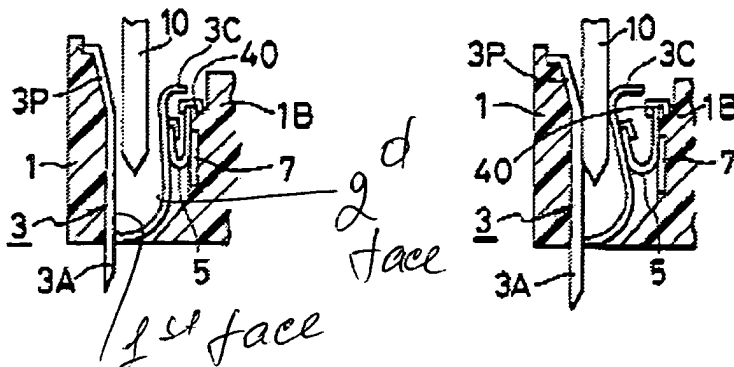
In regard to claim 1, Hikami et al. disclose an electrical connector for interconnecting two printed circuit boards 10 and mother board, comprising:

a dielectric housing 1 defining a passageway 2 extending from a first face (not marked, see Attachment 2) to a second face (not marked, see Attachment 2), which is adjacent to the first face;

an electrical contact 3 received in the passageway 2 and being moveable with respect to the housing 1 (see Figs 4 and 5); and

a biasing spring 5 arranged in the housing 1 and applying a driving force to the contact 3 (see Col. 4, lines 3-16 and Figs. 4-5); and

an actuator 7 coupled with the contact 3 so as to move the contact 3 within the passageway 2.



Attachment 2

In regard to claim 10 Hikami et al. disclose an actuator 7 applying a force to the contact 3 through the spring 5 so as to moveably actuate the contact 3 (see Col. 1, lines 9-10 and 31-33).

In regard to claim 13, Hikami et al. disclose the first FF and the second faces SF are perpendicular to each other.

ad·ja·cent

ad·ja·cent (e-jâ'sent) *adjective*

1. Close to; lying near: *adjacent cities*.
2. Next to; adjoining: *adjacent garden plots*.

[Middle English, from Latin *adiacēns*, *adiacent-*, present participle of *adiacēre*, to lie near : *ad-*, *ad-* + *iacēre*, to lie.]

— ad·ja·cent·ly *adverb*¹

¹The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cosmo (4477133).

In regard to claim 25, Cosmo discloses a dielectric housing 12 defining a passageway 20 or 24 extending from a first face to a second face, which is adjacent to the first face; an electrical contact 26 received in the passageway and being moveable with respect to the housing (pivot point 29), the contact defining first and second ends (not marked, near 29 and opposite end); a biasing spring 36 arranged in the housing 12 and applying a driving force to the contact (see Col. 3, lines 10 and 25-32); and an actuator 42 coupled with **the second end** (near point 29) of the contact so as to move the first end of the contact; wherein the actuator 42 comprises a main body made of a metal sheet 44, 46 and an insulator portion 40 connected with the second end of the contact (near point 29). However, Cosmo is silent about that the main body of the actuator is made of a metal sheet. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the main body of the actuator made of a metal sheet in order to keep the main body of the actuator last longer, further it has been held to be

Art Unit: 2833

within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Allowable Subject Matter

Claim 11 is allowed.

Claims 6 and 8 - 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior Art of record do not teach or suggest --

In regard to claim 6, the biasing spring urges the second end of the contact to protrude over the second face of the housing;

In regard to claim 8, an actuator coupled with the second end of the contact so as to move the first end of the contact along a first direction, and wherein the biasing spring applies a force to the contact tending to move the first end of the contact along a second direction opposite to the first direction;

In regard to claim 9, the actuator comprises a main body made of a metal sheet and an insulator portion connected with the second end of the contact.

In regard to claim 11, the actuator comprises an insulator portion defining a plurality of holes receiving first ends of the contacts.

Response to Arguments

Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larisa Z Tsukerman whose telephone number is (571)-272-2015. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on (571)-272-2800 ex. 33. The fax phone

Art Unit: 2833

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT, 12/16/2004



THO D. TA
PRIMARY EXAMINER